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Rattlesnake Safe in Montana

By Jared Beaver, MSU Extension Wildlife Specialist, and Stephen M. Vantassel, Montana Department of Agriculture Vertebrate Pest Specialist

Spring through fall is a magical time in Montana for the outdoor enthusiast. However, it is also a great time for snakes done hunkering down for the winter, making human encounters more likely. For many, snakes evoke feelings of uneasiness to outright panic. Montana only has 10 native snake species, of which, only the Prairie Rattlesnake (*Crotalus viridis*) is venomous.

Description and Range

Prairie Rattlesnakes are pale green to brown in color with brown or black blotches along the back extending to the tail, where they change from blotches to rings (**Figure 1**). However, pattern and coloration vary widely across snake species and region, and should not be used as a determining factor for identification (**Figure 2**). Unique features that separate adult rattlesnakes from the other non-venomous snakes found in Montana are that they have a triangular head (**Figure 3**), a heat-sensing pit located between the nostril and the eye (**Figure 4**), and elliptical eyes (**Figure 5**). The Prairie Rattlesnake is also the only native snake in Montana with a rattle at the end of its tail (**Figure 6**). However, there are occasions where rattlesnakes lack or lose their rattles. Rattles are added each time a snake sheds its skin, which can occur multiple times within a year. Additionally, rattles can fall off over time, thus, rattles cannot be used to age an individual.



Figure 1. Adult Prairie Rattlesnake. Photo credit Ryan Borgman.



Figure 2. The tail banding of the Gophersnake may be confused with that of the rattlesnake.

Though Montana only has one native venomous snake, non-venomous snakes often behave in ways that can deceive onlookers. For example, some will vibrate their tails as a defense behavior, which can sound similar to that of a rattlesnake. The hog-nosed snake will also ‘hood-out’ by flattening their head and rising into

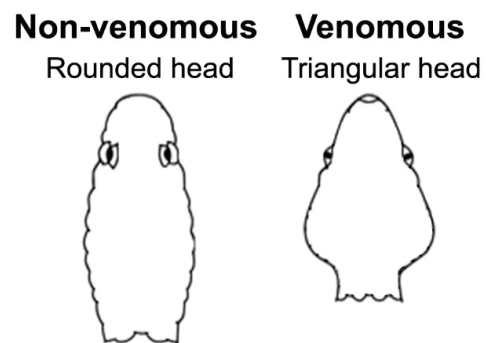


Figure 3. Head shape of non-venomous and venomous snakes. (Merck Manual)

a strike pose in an attempt to make themselves look larger and more intimidating. This behavior can commonly cause them to be mistaken as venomous, while in reality it is an attempt to bluff their way out of danger. Unfortunately, many non-venomous snakes have been killed due to mistaken identity. Snake identification can be difficult in the excitement of a confrontation. It's best to err on the side of caution and give snakes their space.



Figure 4. Cat eye and pit of the *Prairie Rattlesnake*. Photo credit Ryan Borgman.

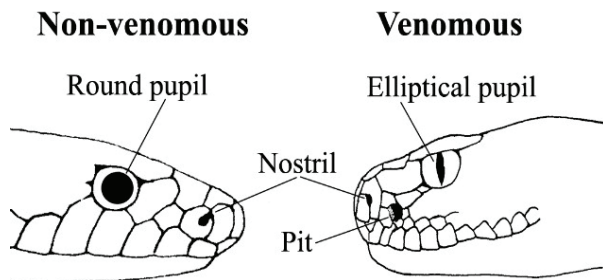


Figure 5. Eye and pit comparison between non-venomous and venomous snakes. (Prevention and Control of Wildlife Damage. 1994)

Prairie Rattlesnakes occur throughout Montana, typically below 6,500 feet, and favor open and arid country but are also found in ponderosa pine stands and mixed grass-coniferous forests (**Figure 7**). They are more likely to be encountered on south-facing slopes and in areas with rock outcrops. The majority of their diet consist of rodents and small mammals. Females typically give birth in late August to early October. Prairie Rattlesnakes primarily



Figure 6. *Prairie Rattlesnake* in defensive position. Photo credit Ryan Borgman.

mate in the fall, immediately after giving birth and just before hibernation. The female then holds the sperm and inseminates herself after emerging from hibernation in the spring.

While rattlesnakes are widespread in Montana and found in a variety of environments, they may turn up around homes and yards in brushy areas and under wood piles. Generally not aggressive, rattlesnakes will likely retreat if given room or not deliberately provoked or threatened. Most bites occur when a rattlesnake is handled or accidentally touched by someone walking or climbing.

On rare occasions, rattlesnake bites have caused severe injury – even death. However, the potential of encountering a rattlesnake should not deter anyone from venturing outdoors. The chances of being bitten are extremely low compared to the risk of other outdoor injuries. Nationwide, only 5 to 6 people die each year from snake bites. Typically, death due to snakebites occurs with children and those who either failed to receive antivenin (the antidote for venom) or those who did not receive antivenin quickly enough.

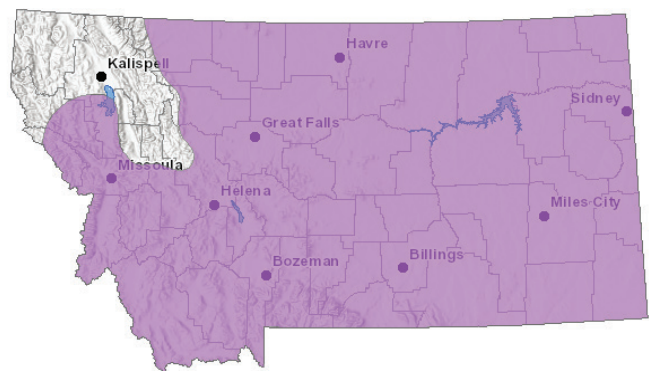


Figure 7. Range of the *Prairie Rattlesnake* (Montana Fish, Wildlife & Parks Field Guide)

Tips for Being Safe Outdoors

- Be alert. Most bites occur between the months of April and September when snakes and humans are most active outdoors. Rattlesnakes are sensitive to the ambient temperature. After a cold or cool night, they will attempt to raise their body temperature by basking in mid-morning sun. Snakes are generally not active when temperatures dip below 60° F. Snakes also avoid overheating by seeking shade under rocks, bushes, or in a burrow on hot and/or sunny days.
- Use care around rock piles, ledges logs, and locations where two vegetation types meet (e.g. grass and rocks). Do not insert hands, step, or sit where you cannot see or visually inspect the area first. Shake out sleeping bags before use.
- When hiking, utilize well-used trails and try to step on rocks and logs rather than over these objects, which are likely hiding spots for snakes. When possible, hike in groups so someone can assist in an emergency.
- Wear shoes, preferably boots, that extend above the ankle. Full-length and loose-fitting long pants with tight weave can also provide a fair amount of protection against snake bites on the lower leg. Never go barefoot or wear open-toed shoes when walking through brushy areas.
- If you encounter a snake, simply maintain a safe distance (three times the body length) and walk around, allowing plenty of space. Snakes do not chase people. People who thought they were being chased were actually in the path of the snake's escape route.
- Teach children not to approach or handle snakes without parental supervision.
- Do not attempt to kill the snake, as many bites occur during the process.
- Do not handle a freshly-killed snake, as it can still inject venom for some time following death.
- Leash your dog when hiking in snake country. Dogs are at increased risk of being bitten due to holding their nose to the ground while investigating the outdoors. Speak to your veterinarian about canine rattlesnake vaccine options and what to do if your pet is bitten.

First Aid

While rare, snakebites do happen. Have a plan in place for responding to a snake bite situation and make sure you have a way to communicate in the event of an emergency, regardless of location.

Do:

- Stay calm but act quickly.
- Get yourself and others away from the snake to avoid additional bites.
- If possible, safely take a picture of the snake.

- Take off all restrictive items, such as rings, watches etc. as venom occasionally causes swelling.
- Activate emergency services as soon as possible by dialing 911. This will ensure that you get access to antivenom treatments as soon as possible.

Do Not:

- DO NOT attempt to capture the snake.
- DO NOT cut the wound with a knife or razor.
- DO NOT use your mouth to “suck” out the venom.
- DO NOT apply a tourniquet.
- DO NOT pack the bite area in ice.
- DO NOT let the victim drink alcohol.

Snakes are an important part of our ecosystem. With a little common sense, we can enjoy and appreciate their beauty and uniqueness without causing ourselves or snakes any harm.

Additional information can be found in the Montana Department of Agriculture's “Living with Montana's Snakes” available at <https://agr.mt.gov/Vertebrate-Pests>.





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